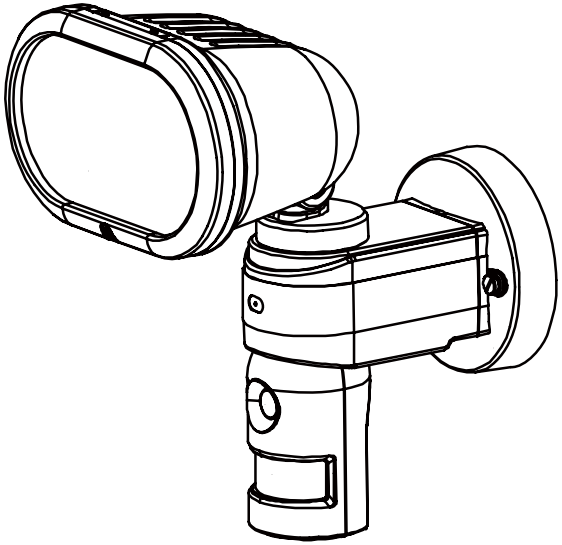
SmartGuard

E300CA-1/E150CA-1



User's Manual

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Contents of Package:

No.	Item	Qty
1	Base Unit (E300CA-1/E150CA-1)	1
2	AA Size 1.5V Alkaline Battery	4
3	2GB SD Card	1
4	Screw Pack	1
5	Halogen Bulb	1
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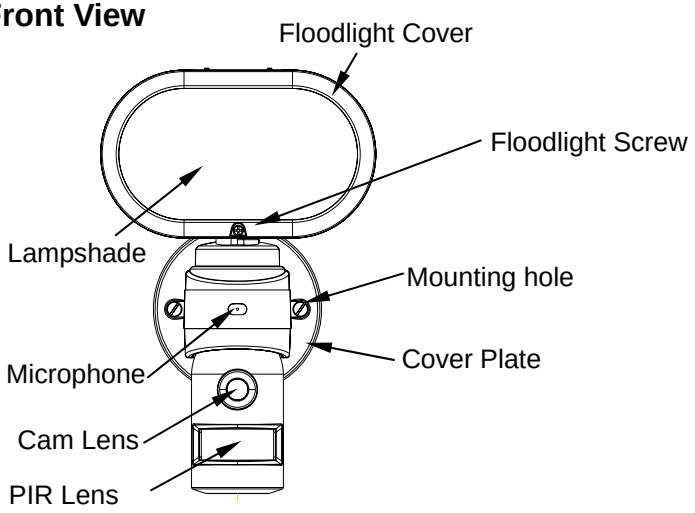
SmartGuard Overview

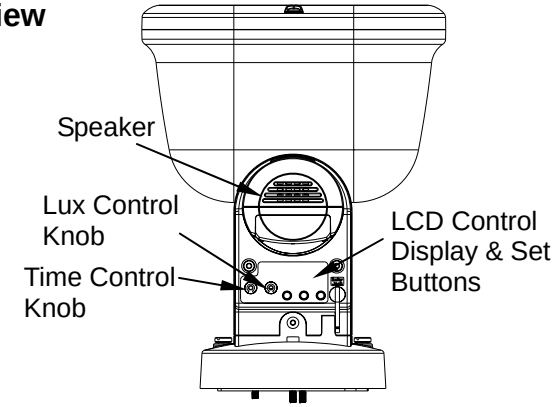
Features

- Crystal Clear Color Video Camera (640*480)
- Motion Activated Security Light
- Capture 20sec/1min/5mins video when motion detected
- SD card memory slot, 2GB SD card included
- 4 Alert Sounds for selection (2 are recordable)
- 4 Scenes satisfy various using scenario
- Weather proof, easy to install

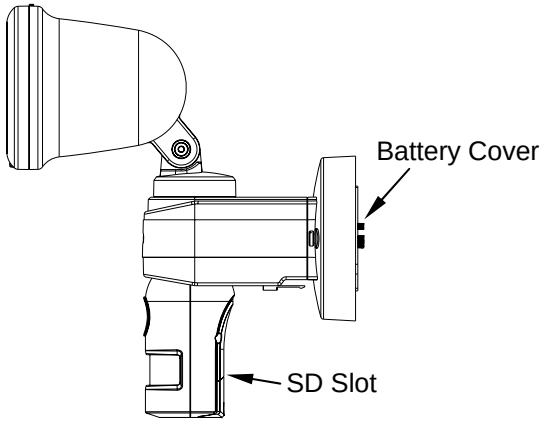
Front View



Bottom View



Side View



Definition of View Parts

Front View

Floodlight Cover:	Open to replace/change lamp.
Lampshade:	Glass for lamp protection.
Floodlight Screw:	Use to open/close the floodlight case.
Microphone:	Takes record of your voice/sound.
Cam Lens:	This is a digital camera lens.
PIR Lens:	Passive Infrared movement sensor
Mounting Hole:	For fixing SmartGuard on the wall.
Cover Plate:	For mounting SmartGuard & wire covering.

Bottom & Side View

Speaker:	Plays recorded/preset sounds
Lux Control Knob:	For adjusting the ambient lighting level at which the floodlight will turn on automatically
Time Control Knob:	For adjusting the time that the halogen floodlight will stay on for.
LCD Control Display & Set Buttons:	Icon display showing settings. Refer to Step 4 for more instructions on function setting.
Battery Cover:	For inserting batteries.
SD Slot:	For inserting a SD memory card.

Installation

Step 1 Insert/remove SD card

- Unscrew the cover using provided Allen key (FIG. 1a)
- Insert provided 2GB SD card or SD card with memory up to 32GB by your choice into the card slot (FIG. 1b).
- Refit the cover, and fasten the screw clockwise (FIG. 1c).

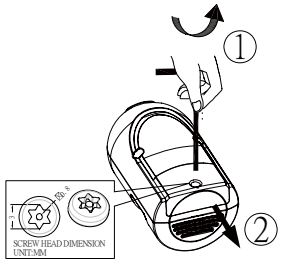


FIG. 1a

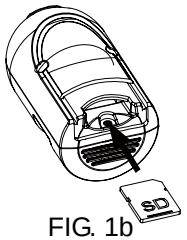


FIG. 1b

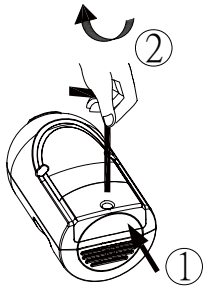


FIG. 1c

Note: If SD card is not inserted properly or not found, SmartGuard will beep 10 seconds once an hour as indication after powering up.

CAUTION:
For security reason, please do not remove the SD card frequently unless an irregular condition has occurred (e.g. detection of an intruder or breaking attempts). To view video, please refer to "Viewing Video" at p12.

Step 2 Bulb Installation

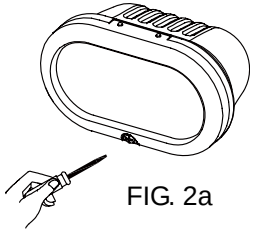


FIG. 2a

- Disconnect the power cord or wall switch
- Remove floodlight cover by unscrewing the screw at the bottom edge of the front surround (FIG. 2a) using Phillips head screw driver.
- Take off the front surround, install a 150/300 watts bulb (please refer to Specification on p.13 for correct halogen bulb for E150CA-1/E300CA-1).
- Rotate halogen bulb to assure proper seating.
- Refit the front surround in place and fasten the screw (FIG. 2b).

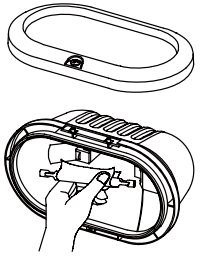
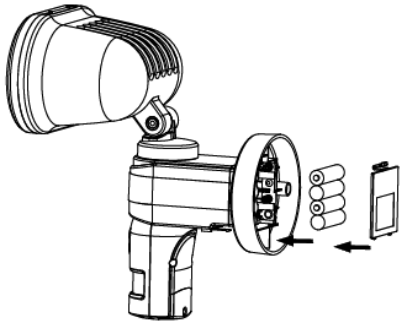


FIG. 2b

CAUTION:
(1) Always handle quartz halogen bulb with a soft cloth. Do not touch the bulb with your bare hand as it will shorten the bulb life.
(2) Do not touch the light while it is in use or still hot. Cool off (about 5 minutes) before touching it.

Step 3 Install Back Up Batteries

- Unscrew and remove the screw of Battery Cover.
- Press and release the cover of battery compartment
- Insert 4 AA size 1.5V alkaline batteries to the battery spring and make sure polarity (-+) is aligned correctly.
- Refit the battery cover.

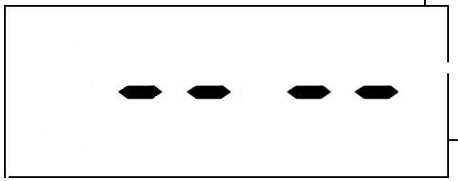


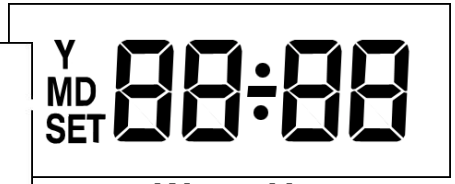
Note: The batteries power supports most functions of SmartGuard except lighting.

Step 4 Local Time Setting

The SmartGuard has a LCD panel with three control knobs: **Set**, **Up** and **Down**.

Once SmartGuard is powered up, it enters PIR warm up time. After 3 seconds, the unit enters standby mode. It implies the unit is ready for function setting.


Standby Mode



Warm Up

Year

- Under standby mode, press **Set** for 3 seconds.
- After Y displays on LCD, press **Up** or **Down** to select correct year. Year range is between 2010 ~ 2099.

Date & Time

- After year setting, press **Set** to enter month & date.
- MD displays on LCD, press **Up** or **Down** to select month from Jan to Dec.
- Press **Set** again to adjust date.
- Press **Up** or **Down** to adjust date from 1st to 31st.
- Press **Set** again to enter time setting.
- Hour ranges from 00 to 23, press **Up** or **Down** to set hour.
- Press **Set** again to adjust minute, and press **Up** or **Down** to adjust minute from 00 to 59.

Note: If no action is taken within 12 seconds, the LCD returns back to standby mode. Setting is not saved.

Step 5 Function Setting

Please make sure the SmartGuard is in standby mode before continuing the following procedures.

Scene Mode

Four scene modes are available for selection. Please base on different conditions to select an ideal scene mode.

- Press **Set** to enter scene 1 (preset mode). The light turns on indicating SmartGuard is ready for setting.
- Press **Up** or **Down** to change scene.
- To save the setting, keep press **Set** until it returns to standby mode.

Scene 1: Ideal for away from home (all day detection)
No matter it's day or night, camera, speaker and light are all in operation.

Scene 2: Ideal for day to day use
Light isn't operating in daytime while speaker isn't operating at night.

Scene 3: Ideal for a place of business
All functions are operating at night while only camera is operating in the daytime.

Scene 4: Ideal for using as a working light
All functions are off except lighting is operating at night. The light turns on if PIR sensor detects a motion.

		Camera	Speaker	Light
Scene 1	Day	√	√	√
	Night	√	√	√
Scene 2	Day	√	√	
	Night	√		√
Scene 3	Day	√		
	Night	√	√	√
Scene 4	Day			
	Night			√

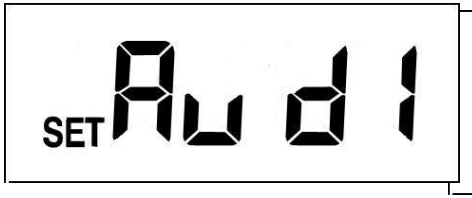
Note: The symbol √ implies the function is ON. The cutting point between day and night is the LUX level you set. For example, if LUX level is set at 150 LUX, day is defined when the ambient light is brighter than 150 LUX whereas night is defined when the ambient light falls below 150 LUX. Please refer to p.9 for LUX adjustment.

Audio Warning

Four warning sounds are available for selection.

- Under scene mode, press **Set** once to enter audio warning 1 (preset mode).
- The light turns on indicating SmartGuard is ready for setting.
- Press **Up** or **Down** to change audio warning.

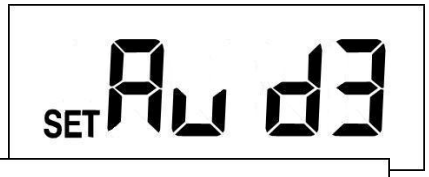
Audio warning 1: Alarm Sound
Audio warning 2: Dog Sound
Audio warning 3 & 4: Empty (for user recording)
Audio warning 5: Mute Mode



Audio Warning 1

Mute Mode

To record your own sound/voice:



- Select audio warning 3 or 4.
- Press **Set** for 3 seconds, the light flashes once implies the SmartGuard is ready for recording.
- Wait for 5 seconds, LCD occurs with REC, the recording starts.
- After that, LCD returns back to audio warning 3 or 4. The recorded sound will be played for verification.

Note: The recording time is 10 seconds. If video is in the middle of recording, the setting of audio warning will not be available until video recording is finished.

PIR Sensitivity

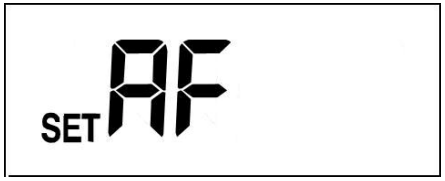
Four levels of PIR sensitivities are available for selection to achieve an optimal performance of PIR detection.

- Under audio warning mode, press **Set** once to enter PIR sensitivity 1 (preset mode).
- The light turns on indicating SmartGuard is ready for setting.
- Press **Up** or **Down** to change PIR sensitivity.

Note: PIR sensitivity 1 is the highest sensitivity level while PIR sensitivity 4 is the lowest sensitivity level.

ID Code Learning (for remote controller only)

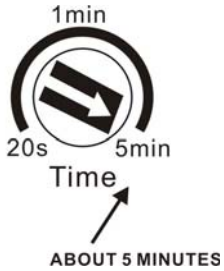
This setting is equipped for remote controller. Please note the remote controller is sold separately.



Step 6 **Adjusting the Control Knobs**

Time Control

The TIME adjustment controls the video recording time and amount of TIME light stays on after the motion is detected.



- Set the amount of TIME by sliding the knob to 20sec, 1 or 5 minutes.

Note: Light stays on time might be extended as long as a motion is detected.

Lux Adjustment

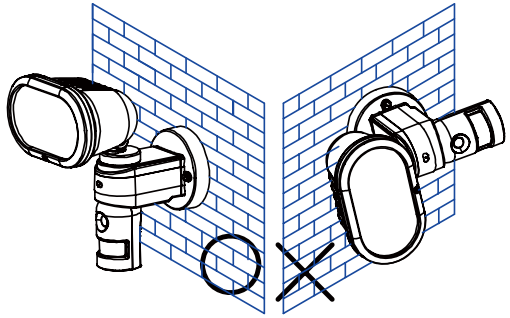
The LUX adjustment determines at what light level the light starts operating.

- Set the LUX control knob to any position between sun ☀ (200LUX) and moon ☾ (20LUX).
- Set scene mode to Scene 2 (refer to p.6 for scene setting).
- If ambient light falls below the set LUX level, the light will start operating.
- Adjust LUX control knob slightly until desired LUX level is found.

Step 7 **Mounting SmartGuard**

Safety Precautions

- Do not install SmartGuard when it is raining.
- Be sure to switch off power source before installing.
- When mounting on the wall, it can be installed only vertically, not horizontally.



VERTICAL HORIZONTAL

IMPORTANT

Some local building codes may require installation of this product by a qualified electrician.

Check your local codes as they apply to your situation. If the house wiring is of aluminum, consult with an electrician about proper wiring methods.

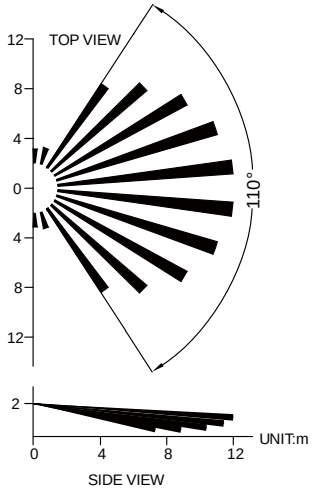
Maintenance or repairing work such as replacing current fuse shall be done by a qualified electrician or technician.

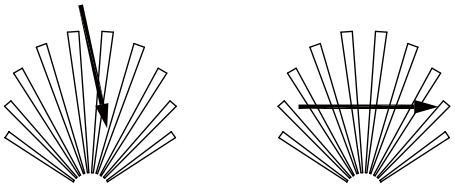
Before proceeding with the installation, TURN OFF THE POWER TO THE LIGHTING CIRCUIT AT THE CIRCUIT BREAKER OR FUSE BOX TO AVOID ELECTRICAL SHOCK.

Choose a Location

Before mounting the SmartGuard, please consider and select a location for the unit based on the coverage angles as shown on the right and the following conditions:

- For the best results, fix the unit on a solid surface, 2~2.5m above the ground.
- Avoid aiming the unit at pools, heating vents, air conditioners or objects which may change temperature rapidly.
- Do not allow sunlight to fall directly on the front of unit.
- Try to avoid pointing the unit at trees or shrubs or where the motion of pets may be detected.
- Prior to mounting the unit, remember to position the motion sensor so that a moving object cuts “across” its beams, not directly towards them. (FIG. 3a, p.10).





SENSITIVITY TO MOTION

FIG. 3a

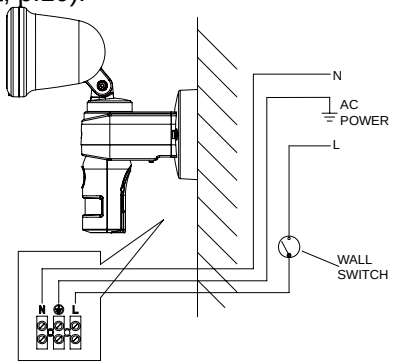
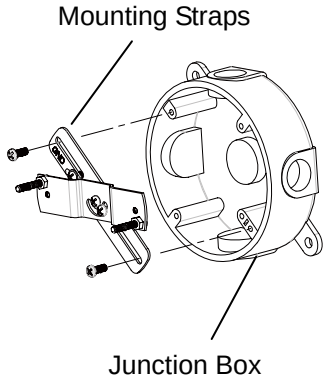


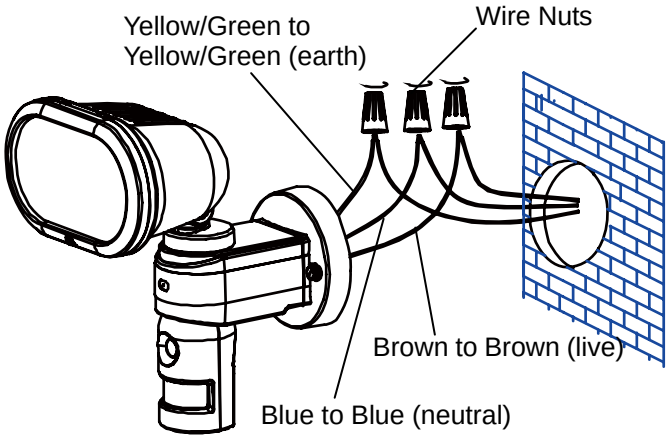
FIG. 3b

Install a wall switch adjacent to the power source (FIG. 3b). This will help you operate SmartGuard with ease.

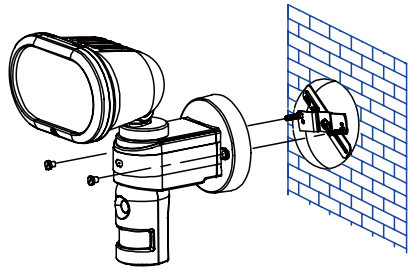
Wire SmartGuard



- Switch off the power source or wall switch.
- Align the mounting straps to the junction box with the holes. Secure with mounting screws.
- Twist the junction box wires with fixture wires together as shown below. Secure with provided wire nuts.



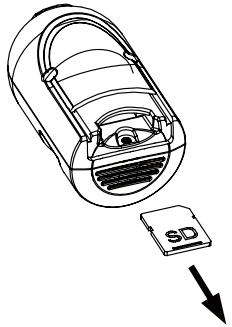
- Align the mounting holes to the mounting straps, secure with two provided screws.
- Switch on the power source or wall switch.



CAUTION:
THIS EQUIPMENT MUST NOT BE MOUNTED ON AN OUTLET BOX WHICH IS SUPPORTED BY A BAR HANGER or equivalent (NE PAS MONTER CET ÉQUIPEMENT SUR UNE BOÎTE DE SORTIE FIXÉE À UNE BARRE DE SUSPENSION or equivalent).

How to View the Video

- Open the cover of SD slot.
- Push in the SD memory card and it will spring out, carefully remove it from your SmartGuard.
- The recorded file will be saved in .asf format under the path **LIGHT\YMD\time+serial no.asf**. Below is an example of a self generated file name:



17075600

Hour Minute Seconds Serial no.

Note: Oldest images are deleted and overwritten as the card reaches capacity to ensure records of recent events are always available.

Test SmartGuard

It is recommended to test the SmartGuard after the above steps are completed to ensure your SmartGuard can reach its optimal performance. The following test is based upon setting of Scene 1 with time control set in 20 seconds and Lux control switched to the dusk position.

- Either day or night, walk into and move slowly around the protected area. Once the PIR detector senses movements, alert sound is on with the light turn on and camera records for 20 seconds.
- Check the video record. The length of playing time is 20 seconds after the camera detects a movement plus approx. 4 to 12 seconds of pre-record time (pre-record image allows you to trace what's happening before a movement has been detected).
- If recorded images are blurred at night, check the position of camera lens. Turn the lens down to avoid taking sky as background. Check if floodlight is spotting on reflective objects. Move reflective objects or adjust mounting position of the SmartGuard if it is required.

Troubleshooting

Light does not turn on:
- Confirm that you have made a correct "wiring connection".
- Make sure that the bulb has not burned out and is installed correctly.

Warning Sound is on after powering up:
- SD card is not inserted.

PIR and LUX is not working:
- Do not allow sunlight to fall directly on to the front of the unit.

Warning sound and video recording is not on:
- They are on only when the unit is triggered.
- Make sure the unit is not on Scene 4.
- Please re-power the unit

Filmed videos can't be saved into SD card:
- Damage of the videos might be caused by inappropriate retrieval/insertion of SD card; ensure the unit is powered off before the action is taken.

No action is taken after scene changing:
- Under video recording mode, the scene changing will not happen until PIR triggering time is finished (e.g. if PIR triggering time is set to 5 mins, the scene changing will be taken 5 mins later).

Video and sound recording is not executing:
- The function is disabled if the unit is set to scene 4.

The taken images of people are blurred during the night:
- Avoid taking images with sky as background; turn the camera lens down if it is the case.
- Try not to spot the light on reflective objects; the reflection of light could cause blurred images.

Specification

Power Requirement	120V~ 60Hz for USA or 220-240V~ 50Hz for EU or 1.5V AA alkaline battery x 4 (for SD card & camera only)
Lighting Load	Max. 300W Halogen Bulb (E300CA-1) or Max. 150W Halogen Bulb (E150CA-1)
PIR Detection Angle	Up to 150°
PIR Detection Distance	Up to 12M under 28°C
Protection Class	I
Protection Degree	IP54 for Europe. Suitable for wet locations for USA
Swiveling Angle	Sensor Part: Horizontal 90° (45° left, right), Vertical 30° (downward)
Mounting Height	2 to 2.5M
Time Adjustment	20 secs/1 min /5 mins
Lux Adjustment	Yes
Warm Up Time	About 60 second
Operating Temperature Range	-10°C ~ 40°C. 20~85% relative humidity, non-condensation.

Specifications are subject to change without prior notice.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions.

1) This device may not cause harmful interference, and
2) This device must accept any interference received, including interference that may cause undesired operation.

Per FCC 15.21, you are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE:
FCC Radiation Exposure Statement:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.